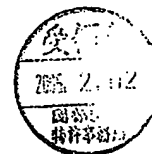


# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT



WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

**Okabe Masao**

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Date of mailing  
(day/month/year)

**01.02.2005**

Applicant's or agent's file reference  
**10003819WO01**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2004/017643**

International filing date (day/month/year)

**19.11.2004**

Priority date (day/month/year)

**21.11.2003**

International Patent Classification (IPC) or both national classification and IPC

Int.Cl. **H05B33/14, C09K11/06, C07D209/86**

Applicant

**CANON KABUSHIKI KAISHA**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion

**13.01.2005**

Name and mailing address of the ISA/JP

**Japan Patent Office**

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

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**2V**

**9314**

WRITTEN OPINION OF THE  
 INTERNATIONAL SEARCHING AUTHORITY

International application No.  
 PCT/JP2004/017643

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Best Available Copy

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/017643

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	<u>1 - 23</u>	NO
Inventive step (IS)	Claims		YES
	Claims	<u>1 - 23</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 23</u>	YES
	Claims		NO

2. Citations and explanations

D1: JP 2003-268362 A (IDEMITSU KOSAN.,LTD.) 25 September 2003(25.09.03)  
Claim 6, Example 3 in Table 2

All claims

Example 3 in Table 2 of D1 discloses the phosphorescent light-emitting device comprising a host material represented by the formula A33 at page 4 having, in a molecule, at least both an indole ring and a carbazole ring.

With regard to the phosphorescence lifetime of the compound A33, it is likely that the lifetime is 880 ms or more at 77K, as can be inferred from lines 8-12 at page 60 of the specification.

WRITTEN OPINION OF THE  
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International application No.

PCT/JP2004/017643

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2004-14155 A E, A	15.01.2004	04.06.2002	

2. Non-written disclosures (Rules 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/017643

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

With regard to claim 6, and page 71

It is inferred that the term "fluorescence" is a typographical error for "phosphorescence" from the whole context of the specification.

With regard to claims 1-8 and 21-23

Claims 1-8, 21-23 are directed to a light-emitting device comprising a layer of organic compound having a phosphorescence lifetime of 880 ms or more at 77K. In these claims, the compound covers electroluminescent materials other than a host material.

On the other hand, as can be seen from the description at page 59 about the technical significance of the compound, the lifetime of a host material plays a role in enhancing "efficiency saturation current".

Therefore, the specification substantially discloses only such a light-emitting device that contains the compound as a host material.

Consequently, these claims are not sufficiently supported by the description as required by Article 6 PCT as their scope is broader than justified by the description and drawings.